

to combine the disclosures of the Takahashi references to the process of Hatanaka. However, Hatanaka is concerned with ultra-deep hydrodesulfurization, but the Takahashi references are relevant only to conventional hydrodesulfurization, and it is that difference that removes all possibility that one of skill in the art would know to make the combination that the Examiner alleges to be obvious.

The Examiner makes the incredible statement that the word "ultra-deep" has no value in the instant claims. In fact, the term "ultra-deep" (defined in the claims as reducing the content of sulfur compounds comprising alkylated benzothiophenes in a hydrocarbon feedstock to less than about 50 ppm.) sets the present invention aside from known hydrodesulfurization processes, with the chemistry involved in the respective processes being completely different. Reference is made to the last paragraph on page 2 of the instant text where it is explained that the process of the present invention achieves removal of alkylated benzothiophenes, something conventional hydrodesulfurization processes, such as those of the Takahashi references, cannot accomplish. Because of this fundamentally different chemistry, one of skill in the art would not know to add a sulfur-containing additive to the catalyst of Hatanaka as taught by Takahasi, since the activity enhancement described in Takahasi would have no bearing on activity enhancement in the process of Hatanaka.

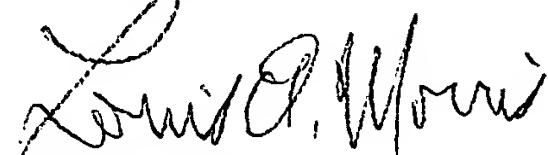
Another irrelevancy stated by the Examiner is that, like the Takahashi references, the feedstock of Hatanaka comprises about 1-2 wt% of sulfur. However, the ultra-deep hydrodesulfurization accomplished by Hatanaka is not applied to a feedstock of that sulfur content, but is applied to a feedstock that has

first been subjected to a conventional hydrodesulfurization stage. This is in marked contradistinction to the Takahashi process.

Baird is even further removed from Hatanaka in relevancy to the process of the present invention. Baird requires the use of a supported noble metal catalyst, wherein the noble metal is selected from the group consisting of platinum, palladium, iridium, and rhodium. Baird therefore teaches away from using the traditional cobalt/molybdenum or nickel/molybdenum catalysts and when further considered in the light of Baird involving totally different chemistry than that of the Takahashi references, makes combination with those references even more unlikely.

It is respectfully submitted that the references cannot be appropriately combined in the manner suggested by the examiner. It is respectfully requested that the instant claims be allowed and that the present application proceed to issue in due course.

Respectfully submitted,



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